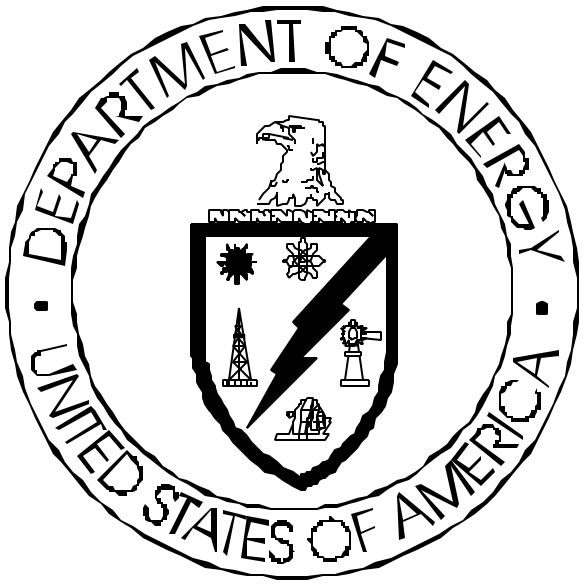
WASTE MANAGEMENT QUALIFICATION STANDARD

On-The Job Training Guide



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WASTE MANAGEMENT QUALIFICATION STANDARD
ON-THE-JOB TRAINING GUIDE

PURPOSE OF THIS GUIDE

This On-the-Job Training(OJT) guide, accompanying checklist, and qualification card are intended for use by waste management supervisors and their employees who are enrolled in the Technical Qualification Program (TQP). The guide is used to help instructors and students prepare for OJT ~~training~~ and to control the OJT training process. The checklist is used by the instructor to record the outcome of the student's performance test, and the qualification card becomes the formal record of accomplishment for the OJT. This guide supports Revision 1 of the Waste Management Qualification Standard.

INTRODUCTION

OJT is an essential element of the Technical Qualification Program to prepare qualification candidates filling assignments who do not possess prior job experience, training or education to acquire the knowledge and skills needed to carry out job assignments. This includes recent hires and individuals who transfer into the section. OJT may be waived for individuals who are hired or transferred into the section if they already posses experience in the waste management field. Supervisors will review past performance appraisals, call previous supervisors, etc. to assure themselves that individuals are properly qualified. This waiver will be documented in the individuals training file.

~~On-the-job training~~OJT is formal training conducted in the work environment providing practical hands-on experience. It has the advantage of providing training on tasks and activities that are of immediate need to the employee. OJT is conducted by individuals who are technical subject matter experts (SMEs), previously qualified in the activities or tasks they instruct for others. The SME uses an OJT guide to assist him/her in the instruction, and a checklist to document the requirements and the results of the training, and reference materials needed to support the training activity. Because knowledge is required to accomplish work it is common place to include knowledge requirements in the OJT instruction along with skill requirements which together are used to successfully accomplish a task.

OJT training generally occurs at intervals following initial knowledge training that takes place in the classroom or other setting. On-the-job training is intended to be performance-based, i.e. where the student is shown how to perform a task or activity and later completes the actions unassisted. OJT may take place over an extended period of time that allows the student to learn by doing, and the instructor time to observe and verify that the student can perform the task or activity to the expected performance level.

OVERVIEW OF THE CONDUCT OF OJT

The demonstration-performance method is the primary instructional method used in OJT. The instructor tells and shows the student how to perform the task. The flight instructor uses this method to teach flying skills. The dentist, the welder, the computer programmer, etc. teach some version of this method. The instructor explains and demonstrates the particular task to the student and then coaches while the student practices the task. This method is based on the principle that trainees learn best by doing. During the practice under supervision the instructor points out errors and helps the student improve performance. Following the training and any additional practice as necessary, the trainee is evaluated using a performance test. When a student has satisfied the objectives, the instructor concludes the training and documents it on the trainee's OJT checklist.

TESTING PERFORMANCE

This OJT program recognizes four levels of accomplishment for testing performance: performance (P), simulate (S), observe (O) and discuss (D). Each qualification requirement addressed within the OJT program is assigned one or more of these identifiers that designates how the student is to demonstrate competency. These levels of accomplishment are identified as:

P- Perform the task or activity. This includes a prior discussion of safety, health and environment implications, related equipment or systems involved, abnormal situations, etc.

S- *Simulate performance of the task. "Walk through" the task and mime all actual manipulations an employee would perform. Also describe administrative requirements and parameters that would be observed or monitored during actual performance of the task.

O- *Observe an individual who is performing the specified activity or task.

D- *Discuss the specified task using references and procedures. Demonstrate knowledge of the task by describing the actions required and the expected change(s) that would result from performing this task.

* Conduct the same discussion as for a perform level of accomplishment.

RESPONSIBILITIES

Waste management supervisors and managers are responsible for implementing the Technical Qualification Program and for ensuring their employees enrolled in the program achieve qualification in accordance with the time frames contained in Order 360.1, Training. Waste management supervisors and managers are responsible for assigning OJT to their TQP employees, selecting SMEs to conduct the training, and verifying that students successfully complete the training. Supervisors will also assign the testing performance level described above.

Instructors are responsible for conducting OJT, verifying student performance, and documenting the outcome of the training in accordance with this guide/checklist.

Students are responsible for preparing for, and actively participating in OJT, and for performing the activities or tasks at the specified performance level.

PREPARATION FOR TRAINING

Instructor: prepares for the training by reviewing the applicable OJT guide, concentrating on any equipment, tools, reference materials, precautions, and perhaps a review of factors that influence trainee learning and motivation (included with this guide). The instructor should review the DOE Orders, Regulations, and procedures, as appropriate, referenced by the OJT guide. The instructor ensures that all notifications and scheduling is achieved in advance and that sufficient time for the training is scheduled with the student.

Student: prepares for the training by completing any training prerequisites, reviewing the OJT guide, and reading reference materials.

PROCESS STEPS IN ACHIEVING SUCCESSFUL OJT

Introduction: Adult learners like to see direct links between their job and the skills and knowledge presented during training. They need answers to questions such as; "Why do I need to learn this?" "When will I use this information?" and "How will I use this information?" The instructor should discuss the objectives of the training with the student to ensure that the student understands the required performance, how well it should be performed and under what circumstances.

The instructor should present an overview of the task or activity that addresses both what will be learned and how it will be presented. The instructor verifies with the student that he/she is

encouraged to ask questions anytime during the training. The instructor sets the "ground rules" regarding how he/she intends to conduct the training to ensure a quality outcome and assurance that safety and procedures are adhered to as applicable when in facilities.

The instructor should learn what the student already knows about the particular activity/task in order to tailor the training based on a combination of the student's experience, education, and training completed to date. By so doing the instructor does not waste the student's time and risk loosing the trainee's attention. Finally, the instructor should take steps to minimize interruptions during the training process. The presence of others in the close proximity of the instruction is a problem because the student needs to be able to practice, make errors, and receive corrective instruction without personal embarrassment.

Explanation: The instructor tells the trainee how to perform the activity or task. The instructor clearly describes the actions the student is expected to perform. The instructor stresses key points and critical steps during the explanation of the knowledge and skills required to perform the task. The instructor makes full use of being in the work location or the job site to explain the task. The instructor explains why and in what order procedural steps or task elements are done to reinforce learning. The instructor asks the student questions to verify comprehension during the explanation. The instructor answers any questions the student asks.

Demonstration: During the demonstration step the instructor shows and explains to the student how to perform the task. It is important that the instructor demonstrate the skill correctly. If the instructor demonstrates an activity or task incorrectly, the instructor's credibility is reduced and the trainee has to "unlearn" the incorrectly presented material before he/she can learn it correctly. The instructor's personal actions reinforce the expected behavior and performance. During this phase the instructor should ask the student frequent questions and explain or demonstrate elements of the task again as necessary.

Practice: The instructor closely supervises the trainee's initial practice to ensure correct performance. One effective method for conducting the practice step is to have the trainee talk through the activity and demonstrate the main steps and key point. During practice the instructor should ask the trainee questions as to what is being done, why it is done, and what the expected outcome is of the actions taken. The student should practice at his/her own pace without unnecessary interruption or too much assistance. As the student's proficiency increases the instructor reduces the coaching, allowing the student to practice independently while periodically checking and coaching as necessary. However, the instructor should correct improper actions.

Conclusion: The conclusion of OJT consists of three elements: a summary, a reinforcement, and documenting the training. The summary consists of a review of the learning objectives and

the task steps--including an assessment of how well the student did. The reinforcement should describe how this training will help the student perform on the job and how it relates to other training the student is engaged in. The instructor documents the training on the student's OJT checklist.

GUIDELINES FOR USING THE ON-THE-JOB TRAINING GUIDE AND CHECKLIST

In preparation for the training, the student reviews facility procedures, DOE Orders, permit requirements, etc. applicable to the storage of waste materials. The student should take notes from the pre-training study and review on items to ask the instructor during the training. While in training the student should be inquisitive, and ask questions to clear up uncertainties and to enlarge understanding. The student should have ample time to perform the task or activity under instructor direction until they are comfortable performing it. Following training the trainee signs the section(s) of the checklist indicating successful completion of the performance.

In preparation for the training, the instructor reviews the task, assembles the reference materials and tools, completes any coordination and notifications to schedule the space and the student for a given time period. While in training the instructor follows the following EDDPCPE training model for conducting OJT.

- **E**xplain Instructor
- **D**emonstrate Instructor
- **D**iscuss Instructor/student
- **P**ractice Student
- **C**oach Instructor
- **P**erform Student
- **E**valuate Instructor

During the evaluation of training, the instructor observes the student's performance. The instructor evaluates the student's performance against the expected performance using the checklist to document the assessment.

When the task performance is adequate the instructor signs the qualification card indicating that the student has successfully completed the task or activity. The student also signs and dates the qualification card validating successful completion.

If the task performance is inadequate the instructor conducts remediation training on elements of the task that were not performed correctly. Following remediation, and additional practice as needed, the

instructor directs the student to perform the task again, during which the student is re-evaluated. Upon successful completion both the instructor and the student sign and date the qualification card.

1. STORAGE OF WASTE MATERIAL

Content of the Training: Expressed in Tasks/Activities and their supporting sub-tasks, knowledge and skills

Note: Supervisors will initially determine what tasks/activities are applicable to a particular employee

1.1 Demonstrate an understanding of how to properly characterize waste streams for storage

Supporting Knowledge and/or Skills

Radioactive Waste:

a. Explain the differences between low level waste, mixed waste, transuranic waste, hazardous waste and high level waste.

b. Explain the different counting equipment utilized in determining radioactive levels.

c. Discuss how to identify, report and document nonconformances.

Hazardous Waste:

a. Explain the differences between characteristic and listed waste.

b. Explain the different characteristic waste classifications of corrosivity, ignitability, reactivity and toxicity.

c. Explain how EPA testing protocols are used to establish the hazardous characteristics of a waste stream.

d. Discuss how to identify, report and document nonconformances.

1.2 Demonstrate the ability to determine if the waste meets the waste acceptance criteria for the storage location.

Supporting Knowledge and/or Skills

a. Obtain a copy of a waste manifest going to the storage facility. Review the entries on the manifest. Discuss the importance of each entry.

b. Compare the waste manifest to the criteria delineated in the waste acceptance criteria.

c. Name several common errors made by waste generators in the receipt of waste at the storage facility.

d. Explain what actions are required in cases when the waste does not meet the waste acceptance criteria.

e. Discuss how to identify, report and document nonconformances.

1.3 Demonstrate the ability to determine the proper storage requirements for the waste stream.

Supporting Knowledge and/or Skills

Radioactive:

a. Describe when waste can be stored outdoors and when waste must be stored in a protective building.

b. Explain the health protection requirements for storage facilities.

c. Review the design basis document and waste acceptance criteria for the requirements for segregation, spacing, and criticality.

d. Discuss how to identify, report and document nonconformances.

Hazardous:

a. Explain the reason for segregation of certain waste because of incompatibility.

b. Explain the reasons for surface impoundments.
c. Review the record keeping requirements.

d. Review the periodic inspection requirements.

e. Discuss how to identify, report and document nonconformances.

1.4 Demonstrate the ability to determine the proper storage containers.

Supporting Knowledge and/or Skills

Radioactive and Hazardous:

a. Review the container requirements contained in the waste acceptance criteria for the receiving facility.

b. Observe during the receipt or preparation for shipping waste that the waste containers conform to the waste acceptance criteria for the receiving facility.

c. Explain the general requirements for container integrity.

d. Observe the condition of the containers to ensure container integrity. Document observed deficiencies.

e. Explain the special container requirements for waste that is reactive, ignitable, and incompatible waste, which are designed to prevent fires and explosions.

f. Discuss how to identify, report and document nonconformances.

1.5 Demonstrate the ability to apply the appropriate regulatory requirements for storage of waste streams.

Supporting Knowledge and/or Skills

Radioactive:

a. Describe the DOE Order and CFR requirements for waste storage.

b. Describe the different storage requirements for the different waste streams.

c. Discuss how to identify, report and document nonconformances.

Hazardous:

a. Discuss the 40CFR standards of general applicability:

- EPA ID number, waste analysis, security, inspections, personnel training
- special handing, location standards, preparedness and prevention
- contingency plan and emergency procedures, manifest system
- record keeping and report releases

b. Explain the permitting requirements:

- Part A Interim status
- Part B Application
- Notice of Violations
- Reporting requirements

c. Discuss how to identify, report and document nonconformances

1.6 Demonstrate the ability to determine if the hazardous storage facility meets permit requirements.

Supporting Knowledge and/or Skills

a. Obtain a copy of the facility's permit.

b. Explain the importance of strict adherence to the permit requirements.

c. Observe in the field activities associated with the permit.

d. Discuss how adherence to the requirements are determined**.**

e. Discuss how to identify, report, and document nonconformances.

1.7 Demonstrate the ability to identify potential industrial, nuclear, radiological, fire and industrial hygiene hazards within a facility.

Supporting Knowledge and/or Skills

a. Explain the purpose for conducting routine facility walk throughs.

b. Describe the various categories of common hazards.

c. Name the administrative controls used to eliminate or mitigate hazards.

d. Discuss the engineered features used to control hazards.

e. Conduct an industrial safety walk through of a facility.

f. Conduct an industrial hygiene walk through of a facility.

g. Conduct a radiological walk through of a facility.

h. Identify and record nonconformances using the appropriate procedure/checklist(s).

i. Document and discuss observed good practices in industrial safety.

j. Observe/participate in a facility safety/emergency drill.

k. Observe/participate in a post-drill critique.

1. STORAGE OF WASTE MATERIAL

OJT Checklist

1.1 Demonstrate an understanding of how to properly characterize waste streams for storage.

Supporting Knowledge and/or Skills

Radioactive Waste:

a.	Differences between LLW, MW, TRU, HW, and WLW		S	NS
b.	Different counting equipment utilized in determining rad levels	S	NS	
c.	Nonconformances identified, reported, and documented		S	NS

Hazardous Waste:

a.	Differences between characteristic and listed waste		S	NS
b.	Different characteristic waste classifications of corrosivity		S	NS
	ignitability		S	NS
	reactivity		S	NS
	toxicity.		S	NS
c.	Use of EPA testing protocols are used to establish hazardous characteristics of a waste stream.		S	NS
d.	Nonconformances identified, reported, and documented		S	NS

1.2 Demonstrate the ability to determine if the waste meets the waste acceptance criteria for the storage location.

Supporting Knowledge and/or Skills

Radioactive and hazardous:

a.	Review the entries on the manifest, discuss their importance	S	NS	
b.	Compare the waste manifest to the criteria delineated in the WAC	S	NS	
c.	Common errors made by waste generators in the receipt of waste	S	NS	
d.	Actions when the waste does not meet the WAC	S	NS	
e.	Nonconformances identified, reported, and documented	S	NS	

1.3 Demonstrate the ability to determine the proper storage requirements for the waste stream.

Supporting Knowledge and/or Skills

Radioactive:

a.	Waste storage outdoors vise waste storage an a protective building	S	NS
b.	Health protection requirements for storage facilities	S	NS
c.	Design basis doc. & WAC requirements for segregation	S	NS
	Spacing	S	NS
	Criticality	S	NS
d.	Nonconformances identified, reported, and documented	S	NS

Hazardous:

a.	Reason for segregation of certain waste because of incompatibility	S	NS
b.	Reasons for surface impoundments	S	NS
c.	Review of the record keeping requirements	S	NS
d.	Review the periodic inspection requirements	S	NS
e.	Nonconformances identified, reported, and documented	S	NS

1.4 Demonstrate the ability to determine the proper storage containers

Supporting Knowledge and/or Skills

Radioactive and hazardous:

a.	Review WAC container requirements for the receiving facility	S	NS
b.	Observe during the receipt or preparation for shipping waste: waste containers conform to WAC for the receiving facility	S	NS
c.	General requirements for container integrity	S	NS
d.	Observe container condition to ensure container integrity	S	NS
	Document observed container deficiencies	S	NS
e.	Special container requirements for waste that are reactive, ignitable, incompatible waste designed to prevent fires/explosion	S	NS
f.	Nonconformances identified, reported, and documented	S	NS

1.5 Demonstrate the ability to apply the appropriate regulatory requirements for storage of waste streams.

Supporting Knowledge and/or Skills

Radioactive:

a.	Describe the DOE Order and CFR requirements for waste storage	S	NS
b.	Nonconformances identified, reported, and documented	S	NS

Hazardous

a.	Discuss the 40CFR standards of general applicability			
	EPA ID number, waste analysis, security, inspections, training	S	NS	
	Special handing, location standards, preparedness and prevention		S	NS
	Contingency plan and emergency procedures, manifest system	S	NS	
	Record keeping and report releases		S	NS
b.	Explain the permitting requirements			
	Part A Interim status		S	NS
	Part B Application		S	NS
	Notice of Violations		S	NS
	Reporting requirements	S	NS	
c.	Nonconformances identified, reported, and documented		S	NS

1.6 Demonstrate the ability to determine if the hazardous storage facility meets permit requirements

Supporting Knowledge and/or Skills

a.	Obtain a copy of the facility's permit		S	NS
b.	Explain importance of strict adherence to permit requirements	S	NS	
c.	Observe in the field activities associated with the permit	S	NS	
d.	Discuss how adherence to the requirements are determined		S	NS
e.	Nonconformances identified, reported, and documented		S	NS

1.7 Demonstrate the ability to identify potential industrial, nuclear, radiological, fire and industrial hygiene hazards within a facility

Supporting Knowledge and/or Skills

a.	Explain purpose for conducting facility walk throughs	S	NS	
b.	Describe the various categories of common hazards		S	NS
c.	Name administrative controls to eliminate/mitigate hazards		S	NS
d.	Discuss the engineered safety features used to control hazards	S	NS	
e.	Conduct an industrial safety walk through in a facility	S	NS	
f.	Conduct an industrial hygiene walk through in a facility	S	NS	
g.	Conduct a radiological walk through in a facility	S	NS	
h.	Identify/record NCRs using the appropriate procedure/checklist(s)		S	NS
i.	Document and discuss observed good practices in industrial safety		S	NS

j.	Observe/participate in a facility safety/emergency drill	S	NS	
k.	Observe/participate in a post-drill critique		S	NS

Technical Qualification Record (Page 1 of 2)

Name _____ Position _____

1. Storage of Waste Material

1.0 Demonstrate an understanding of how to properly characterize waste streams for storage

_____

(List learning activity or comments)

_____

Qualifying Official Signature/Date

1.2 Demonstrate the ability to determine if the waste meets the waste acceptance criteria for the storage location.

_____

(List learning activity or comments)

_____

Qualifying Official Signature/Date

1.3 Demonstrate the ability to determine the proper storage requirements for the waste stream.

_____

(List learning activity or comments)

_____

Qualifying Official Signature/Date

1.4 Demonstrate the ability to determine the proper storage containers

_____

(List learning activity or comments)

_____

Qualifying Official Signature/Date

1.5 Demonstrate the ability to apply the appropriate regulatory requirements for storage of waste streams.

_____

(List learning activity or comments)

_____

Qualifying Official Signature/Date

1.6 Demonstrate the ability to determine if the hazardous storage facility meets permit requirements

_____

(List learning activity or comments)

_____

Qualifying Official Signature/Date

Technical Qualification Record (Page 2 of 2)

1.7 Demonstrate the ability to identify potential safety hazards within a facility

(List learning activity or comments)

Qualifying Official Signature/Date